

Customer No.: 31561
Application No.: 10/711,860
Docket No.: 13675-US-PA

REMARKS

Present Status of the Application

The Office Action mailed on May 26, 2005, rejected all claims 1-19. Specifically, the Office Action rejected claims 1-3, 5-8, 11-14, 16-17 and 19 under 35 U.S.C. 102(e), as being anticipated by Han et al. (US 2005/0007333 A1). In addition, claims 4, 9 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Han et al. (US 2005/0007333 A1) in view of Kim (US 6,459,203 B1). Further, claims 10 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Han et al. (US 2005/0007333 A1) in view of Applicants' Admitted Prior Art (AAPA) Fig. 1. Applicants do not agree the rejections, and reconsideration of those claims is respectfully requested.

Claims Rejections under 35 USC §102(e)

Claims 1-3, 5-8, 11-14, 16-17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Han et al. (US 2005/0007333 A1).

In response to the rejection thereto, Applicants traverse the rejections and submit claims 1-3, 5-8, 11-14, 16-17 and 19 are neither taught, disclosed, nor suggested by Han et al. (US 2005/0007333 A1), and thus should be allowed.

With respect to claim 1:

1. A feedback circuit structure for a backlight module comprising:

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a substrate;
a plurality of tube contacts, disposed on the substrate;
a plurality of independent feedback contacts, disposed on the substrate,
wherein each independent feedback contact is coupled to one of the tube
contacts; and
a common ground feedback contact, disposed on the substrate such that the
common ground feedback contact is coupled to one of the independent
feedback contacts.

The aforementioned claim 1 discloses disposing the tube contacts, the independent feedback contacts and the common ground feedback contact on the same substrate, wherein each independent feedback contact is coupled to one of the tube contacts, and the common ground feedback contact is coupled to one of the independent feedback contacts. By which, both of the independent feedback control and the common ground feedback control can be realized in the same feedback circuit structure.

However, Applicants submit that (1) Han et al. (US 2005/0007333 A1) only teach a PCB for collecting the power source wires 26 thereon, but fail to disclose disposing the tube contacts, the independent feedback contacts and the common ground feedback contact on the same substrate, (2) Han et al. (US 2005/0007333 A1) disclose a plurality of connectors [32a, 32b] and a plurality of feedback connectors [22a, 22b], but each feedback connector [22a, 22b] connects to plural connectors [32a, 32b], which is incapable to perform an independent feedback to

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every lamp respectively, (3) Examiner contended that item [22a, 22b] (feedback connectors) read on the independent feedback contacts as required in claim 1 and Examiner also contended that item [32a, 32b] (connectors) read on the tube contacts as required in claim 1 (See page 2 of the current Office Action), but Han et al. (US 2005/0007333 A1) fail to teach the common ground feedback contact as required in claim 1, and (4) Examiner contended the common ground feedback contact being disclosed in Fig. 8 of Han et al. (US 2005/0007333 A1), but the Applicants find no common ground feedback contact in Fig. 8 and respectfully disagree.

With respect to claim 2:

2. The feedback circuit structure of claim 1, wherein the structure further comprises an independent feedback plugging stand disposed on the substrate such that the independent feedback contacts are coupled to the independent feedback plugging stand.

Han et al. (US 2005/0007333 A1) (Paragraph [0040], Fig. 7) teach a first high-voltage part 21a, a first low-voltage part 23a, a second high-voltage part 21b, and a second low-voltage part 23b. Even though the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b include substrates, they could not also be disposed on themselves. Further, the feedback connectors [22a, 22b] belonging to the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b could not also be coupled to themselves. Therefore, Applicants

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submit that the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b are different from the independent feedback plugging stand as required in claim 2. Han et al. (US 2005/0007333 A1) fail to teach, suggest or disclose the independent feedback plugging stand of claim 2.

With respect to claim 3:

3. The feedback circuit structure of claim 2, wherein the structure further comprises a conductive cap plugged into the independent feedback plugging stand for connecting the independent feedback contacts together.

Examiner contended that the conductive cap plugged into the independent feedback plugging stand is disclosed in Fig. 7 of Han et al. (US 2005/0007333 A1). Applicants respectfully disagree due to Han et al. (US 2005/0007333 A1) fail to teach, suggest or disclose the independent feedback plugging stand as required in claim 2 and there finds no conductive cap in Fig. 7. Applicants submit that Han et al. (US 2005/0007333 A1) fail to teach, suggest or disclose the conductive cap as required in claim 3.

Claim 5 and claim 6 disclose the structure further comprising a conductive material such as conductive plastics or solder blocks disposed over the independent feedback contacts for electrically connecting various independent feedback contacts together. Examiner contended that the inherent conductive cap plugged into the independent feedback plugging stand is

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disclosed in Fig. 7 of Han et al. (US 2005/0007333 A1). Applicants respectfully disagree and submit that Han et al. (US 2005/0007333 A1) fail to teach the conductive material as required in claim 5 and claim 6 to electrically connect various independent feedback contacts together.

With respect to Claim 7, recites in part: A backlight module, comprising:

...

a feedback circuit structure, having:

a substrate;

a plurality of tube contacts, disposed on the substrate, wherein each tube contact is coupled to one of the feedback terminals of the lamps;

a plurality of independent feedback contacts, disposed on the substrate, wherein each independent feedback contact is coupled to one of the tube contacts;

a common ground feedback contact, disposed on the substrate, wherein the common ground feedback contact is coupled to one of the independent feedback contacts; and

...

Applicants submit that (1) Han et al. (US 2005/0007333 A1) only teach a PCB for collecting the power source wires 26 thereon, but fail to disclose disposing the tube contacts, the independent feedback contacts and the common ground feedback contact on the same substrate.

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(2) Han et al. (US 2005/0007333 A1) disclose a plurality of connectors [32a, 32b] and a plurality of feedback connectors [22a, 22b], but each feedback connector [22a, 22b] connects to plural connectors [32a, 32b], which is incapable to perform an independent feedback to every lamp respectively, (3) Examiner contended that item [22a, 22b] (feedback connectors) read on the independent feedback contacts as required in claim 7 and Examiner contended that item [32a, 32b] (connectors) read on the tube contacts as required in claim 7 (See page 3 of the current Office Action), therefore, Han et al. (US 2005/0007333 A1) fail to teach the common ground feedback contact as required in claim 7, and (4) Examiner contended the common ground feedback contact being disclosed in Fig. 8 of Han et al. (US 2005/0007333 A1), but the Applicants find no common ground feedback contact in Fig. 8 and respectfully disagree.

With respect to claim 8, Han et al. (US 2005/0007333 A1) (Paragraph [0040], Fig. 7) teach a first high-voltage part 21a, a first low-voltage part 23a, a second high-voltage part 21b, and a second low-voltage part 23b. Even though the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b include substrates, they could not also be disposed on themselves. Further, the feedback connectors [22a, 22b] belonging to the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b could not also be coupled to themselves. Therefore, Applicants submit that the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b are different from the

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independent feedback plugging stand as required in claim 8. Han et al. (US 2005/0007333 A1) fail to teach, suggest or disclose the independent feedback plugging stand of claim 8.

With respect to Claim 12, recites in part: A backlight module, comprising:

...

a feedback circuit structure, having:

a substrate;

a plurality of tube contacts, disposed on the substrate, wherein each tube contact is coupled to one of the feedback terminals of the lamps;

a plurality of independent feedback contacts, disposed on the substrate, wherein each independent feedback contact is coupled to one of the tube contacts and the independent feedback contacts are mutually connected together;

a common ground feedback contact, disposed on the substrate, wherein the common ground feedback contact is coupled to one of the independent feedback contacts; and

...

Applicants submit that (1) Han et al. (US 2005/0007333 A1) only teach a PCB for collecting the power source wires 26 thereon, but fail to disclose disposing the tube contacts, the independent feedback contacts and the common ground feedback contact on the same substrate,

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(2) Han et al. (US 2005/0007333 A1) disclose a plurality of connectors [32a, 32b] and a plurality of feedback connectors [22a, 22b], but each feedback connector [22a, 22b] connects to plural connectors [32a, 32b], which is incapable to perform an independent feedback to every lamp respectively, (3) Examiner contended that item [22a, 22b] (feedback connectors) read on the independent feedback contacts as required in claim 12 and Examiner contended that item [32a, 32b] (connectors) read on the tube contacts as required in claim 12 (See page 4 of the current Office Action), therefore, Han et al. (US 2005/0007333 A1) fail to teach the common ground feedback contact as required in claim 12, (4) Han et al. (US 2005/0007333 A1) fail to teach that the independent feedback contacts are mutually connected together, and (5) Examiner contended the common ground feedback contact being disclosed in Fig. 8 of Han et al. (US 2005/0007333 A1), but the Applicants find no common ground feedback contact in Fig. 8 and respectfully disagree.

With respect to claim 13, Han et al. (US 2005/0007333 A1) (Paragraph [0040], Fig. 7) teach a first high-voltage part 21a, a first low-voltage part 23a, a second high-voltage part 21b, and a second low-voltage part 23b. Even though the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b include substrates, they could not also be disposed on themselves. Further, the feedback connectors [22a, 22b] belonging to the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b could not also be coupled to themselves.

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Therefore, Applicants submit that the first high-voltage part 21a, the first low-voltage part 23a, the second high-voltage part 21b, and the second low-voltage part 23b are different from the independent feedback plugging stand as required in claim 13. Han et al. (US 2005/0007333 A1) fail to teach, suggest or disclose the independent feedback plugging stand of claim 13.

With respect to claim 14, Examiner contended that the conductive cap plugged into the independent feedback plugging stand is disclosed in Fig. 7 of Han et al. (US 2005/0007333 A1). Applicants respectfully disagree due to Han et al. (US 2005/0007333 A1) fail to teach, suggest or disclose the independent feedback plugging stand as required in claim 13 and there finds no conductive cap in Fig. 7. Applicants submit that Han et al. (US 2005/0007333 A1) fail to teach, suggest or disclose the conductive cap as required in claim 14.

With respect to claim 16 and claim 17, which disclose the structure further comprises a conductive material such as conductive plastics or solder blocks disposed over the independent feedback contacts for electrically connecting various independent feedback contacts together. Examiner contended that the inherent conductive cap plugged into the independent feedback plugging stand is disclosed in Fig. 7 of Han et al. (US 2005/0007333 A1). Applicants respectfully disagree and submit that Han et al. (US 2005/0007333 A1) fail to teach the conductive material as required in claim 16 and claim 17 to electrically connect various independent feedback contacts together.

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Claims Rejections under 35 USC §103(a)

Claims 4, 9 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Han et al. (US 2005/0007333 A1) in view of Kim (US 6,459,203 B1). Further, claims 10 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Han et al. (US 2005/0007333 A1) in view of Applicants' Admitted Prior Art (AAPA) Fig. 1. Applicants respectfully disagree for at least the following reasons.

Claims 4, 9 and 15 disclose that the structure further comprises a common ground feedback plugging stand disposed on the substrate such that the common ground feedback contacts are coupled to the common ground feedback plugging stand.

According to the above remarks, Applicants submit that the tube contacts, the independent feedback contacts, the common ground feedback contact, and the arrangement thereof as required in claims 4, 9 and 15 are neither taught, disclosed, nor suggested by Han et al. (US 2005/0007333 A1) and Kim (US 6,459,203 B1), or any of the other cited references, taken alone or in combination.

Kim (US 6,459,203 B1) discloses, in Fig. 5, a lamp apparatus for an LCD comprising a ground plate [9]. Examiner contended that the ground plate [9] read on the common ground plugging stand as required in claims 4, 9 and 15 (See page 6 of the current Office Action). Applicants respectfully disagree because the intrinsic function and the connecting manner of the

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ground plate [9] is different from the common ground plugging stand as required in claims 4, 9 and 15.

Accordingly, Applicants submit that there lacks suggestion or motivation for one of ordinary skill in the art at the time of the invention to combine the circuit structure of Han et al. (US 2005/0007333 A1) and the ground plate [9] of Kim (US 6,459,203 B1). Claims 4, 9 and 15 are not rendered obvious by Han et al. (US 2005/0007333 A1) and Kim (US 6,459,203 B1), or any of the other cited references, taken alone or in combination, and thus should be allowed.

Claims 10 and 18 disclose that the driving module further comprises a mutually coupled powering device and a feedback controller such that the powering device is coupled to the lamps and the feedback controller is coupled to the feedback lines.

According to the above remarks, Applicants submit that the tube contacts, the independent feedback contacts, the common ground feedback contact, and the arrangement manner thereof as required in claims 10 and 18 are neither taught, disclosed, nor suggested by Applicants' Admitted Prior Art (AAPA) and Han et al. (US 2005/0007333 A1), or any of the other cited references, taken alone or in combination. Specifically, AAPA and Han et al. (US 2005/0007333 A1) fail to teach the features of disposing the tube contacts, the independent feedback contacts, and the common ground feedback contact on the same substrate, coupling each independent feedback contact to one of the tube contact, and coupling the common ground feedback contact to one of the independent feedback contacts.

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Accordingly, there lacks suggestion or motivation for one of ordinary skill in the art at the time of the invention to combine the circuit structure of Han et al. (US 2005/0007333 A1) and the mutually coupled powering device and the feedback controller of AAPA. Claims 10 and 18 are not rendered obvious by Han et al. (US 2005/0007333 A1) and AAPA, or any of the other cited references, taken alone or in combination, and thus should be allowed.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims are in proper condition for allowance and an action to such effect is earnestly. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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